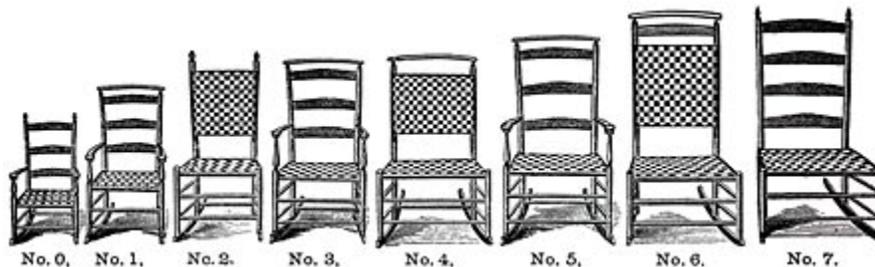


## Shaker Chair Tape Weaving Instructions



### Tools Required

Tack hammer, No. 3 upholstery tacks (12 for an average size seat), scissors, needle and thread, flat-bladed screwdriver or spoon, and a work surface about waist-high and covered with a blanket.

### Introduction

The WARP is one length of tape wrapped around the seat rails from front to back. The WOOF is one length of tape wrapped around the seat rails from side to side and woven under and over the warp in a checkerboard, herringbone or diamond pattern. The space between the upper and lower layers is stuffed with a firm foam rubber cushion (the Shakers used horsehair or other materials), not only for comfort, but also to maintain contact between the two layers so that the lower layer helps support the weight which would otherwise be carried only by the upper layer of tape. This prevents sagging and reduces wear.

For strength, we recommend that you use 1" tape for one- or two-color checkerboard and 5/8" tape for the herringbone and other more complicated designs (See Figure 4). You may also use the two widths of tape on one seat - warping with one width and weaving with the other - to create a "rectangular checkerboard" pattern.

### Joining the Tape

Shaker Workshops chair tape is supplied in 5, 10, and 20 yard rolls because these have been found to be convenient weaving lengths which produce the least amount of waste. The ends can be joined easily without loss of strength by overlapping them about 1" and sewing across the width of the tape two or three times. For neatness, always cut the tape so that the joint occurs on the underside of the seat or the backside of the chair. Those who don't sew can staple and glue the joint together.

### Warping the Chair

If you are weaving with two colors of tape, use the darker color for the warp. You will find it easier to warp the chair with the tape still in a roll, unwinding it as you go. Tack the end of the warp to the underside of either side seat rail (See Figure 1). Pull the tape up behind the back rail and forward to the front rail in a straight line. Pull it down and under the front rail and back up behind the back rail. Continue to wrap the tape around the front and back rails until the back rail cannot take any more rows. Check to be sure there are no twists. Tack the end of the tape to the underside of the side rail, quite close to the back post. Cut off any excess. Notice that the warp

appears slanted on the underside of the seat (See Figure 1). The tension should be firm but not so tight that the front rail bows.

For chairs that are wider in the front than in the back, there will be a small triangular area at each side of the seat that is not covered by the warp. These areas will be filled in later.

### **Inserting the Foam Cushion**

Trim the cushion to size with scissors, if necessary. To prevent the corners from showing once the seat is completed, trim off a small triangle (1" or so) from each corner. Slide the cushion into the space between the upper and lower layers of warp.

### **Weaving the Woof**

It is easier to weave the woof with the tape unwound from the roll. If your tape is in rolls of more than 10 or 20 yards, you may wish to cut it into shorter lengths.

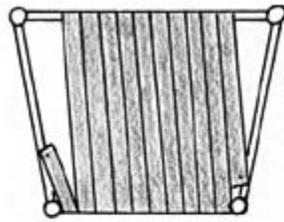
For 1" tape, start the woof on the underside of the seat, centered on the back rail. Push aside one of the center rows of warp on the back rail and tack the beginning of the woof underneath it. Begin weaving by going under the first row of warp, over the second row, under the third row, etc., until the side rail is reached. Turn the chair right side up. Pull the tape up around the side rail and weave across the top in the same way. After weaving to the other side, turn the chair upside down and weave the second row in the opposite manner to the first row—go over the first row of warp, under the second row, over the third, and so on. This creates a checkerboard pattern when two colors of tape are used (See Figure 2). Continue this pattern of weaving until the woof is approximately halfway between the back rail and the front rail. It is important that you weave the underside of the seat to prevent sagging and reduce wear on the top side.

### **Finishing the Warp at the Edges**

Now complete the warp in the triangular areas to the right and left. Use the tape that was left over when you warped the chair. On the top side of the seat, push back the rear-most row of the woof where it goes over the side rail, tack the end of a piece of warp tape to the side rail, and replace the woof tape so that both the tack and the end of the tape are hidden. Weave the warp tape forward to the front rail (maintaining the checkerboard pattern). Pull it around the front rail to the underside and weave toward the back rail. Tack to the side rail in the same hidden manner. The second "filler" tape is tacked part way down the side rail (depending on the width of the tape and the amount of splay in the seat), woven to the front, brought around the front rail, then woven toward the back and tacked in the same manner. Figure 2 illustrates what the fillers will look like on the Straight Chair. Tack and weave as many extra pieces of tape on both sides of the seat as are necessary to fill the triangles.

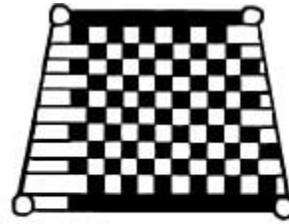
### **Finishing the Woof**

Continue to weave the woof. The seat will tighten as you weave the last rows of the woof. Use the blade of a screwdriver, the handle of a spoon, or any wide and flat piece of metal or wood to poke the end of the tape through the narrowing spaces. If the last row has less than enough space for a width of tape, the previous rows can be pushed back and compressed enough to provide the necessary space. When you have completed the last row, tack the end of the woof on the underside of the front seat rail.



Bottom View of Seat

Figure 1



Top View of Seat

Figure 2

### **Weaving Taped Backs**

Weaving the back of a chair, rocker or settee presents an extra challenge because both sides of the back are visible. Be sure to stain and finish at least 1" on each end of the top and bottom rails. Also, remember to join tape on the back side.

For a uniform appearance, use the same tape color for the warp on the back as on the seat. Tack one end of the tape on the back side of the backpost, slightly inside, about 1" up from the bottom bent rail. Bring the tape up and over the top bent rail. Continue to wrap the tape until the bottom bent rail can take no more tape. (On chairs and rockers, note that the top bent rail is a bit longer than the bottom bent rail. Center the tape on the top bent rail before cutting and tacking the tape.) Tack the tape on the back side of the backpost, slightly inside, about 1" down from the top bent rail. Slide the foam cushion between the front and back layers of tape.

On the back side of the top bent rail, in the center, part the warp slightly and tack one end of the tape you have chosen for the woof. As you weave the woof on the back, note that you will not be able to include the last few rows of warp near the tacks. Continue weaving until you reach the bottom bent rail. For armless chairs and rockers, bentwood rockers, and the settee, finish the woof in the usual way. For chairs and rockers with arms, finishing the woof requires a bit of judgement; the Shakers themselves had several techniques. At Shaker Workshops, we finish the woof in the usual way, then piece in a bottom row of woof on the front side between the arms, with 3" ends simply tucked under the warp.

### **Weaving With 5/8" Tape**

The narrower tape is used to create the herringbone and diamond patterns, as well as other more complex patterns. The basic techniques are the same as those for weaving with the 1" webbing. When you begin and end the woof, however, do not tack in the center of the rail. Tack all the way over at one end of the back rail and weave the first row completely across the underside of the chair. Because it takes many more rows of 5/8" tape to fill the side rails, you may choose to warp a little more loosely than for the 1" tape. This will make it easier to weave the last few rows.

### **Weaving Chair Backs With 5/8" Tape**

When warping the chair back, do not tack it in place right away. Use masking tape (which will not mar the finish) to hold it in place on the back posts. When the back is complete, a decision can be made as to whether to tack or "tuck" the ends, based on the requirements of the pattern.

Because it is more difficult to completely hide joints under the 5/8" tape, try to have one continuous piece of tape left for the woof of the chair back. If this is not possible, join in the center of the back where the weaving is the loosest.

The woof is begun at the back side of the top bent rail, at one end. If you are doing an arm chair, the final row of woof is woven underneath the arm. This will cause a gap to appear in the pattern

visible on the front of the chair. To compensate for this, pause before weaving the last row on the front and cut a piece of tape long enough to go across the front of the back plus 6". Weave this filler row as the pattern dictates, tucking 3" at each end under the warp rows. Now bring the woof around and weave the final row. End the woof at the far edge of the bottom bent rail. (See the No. 5 Tape Back Arm Chair in the Shaker Workshops catalog).

### Weaving the Herringbone Pattern

This pattern is easy to weave, since it consists wholly of weaving the woof under two rows of the warp and then over the next two rows. What gives the pattern a more complicated look is the way in which the rows of woof are staggered (See Figure 4). Until you get the "feel" for the herringbone pattern, it may be useful to view it as being made up of four rows which repeat:

Row 1: Begin by going under the first two rows of warp, over the next two, etc. until the side rail is reached. (Weave the underside of the seat in the same way.)

Row 2: Go over the first row of warp, under the next two, over the next two, etc. (Weave the underside the same way.)

Row 3: Go over the first two rows of warp, under the next two, etc. (Weave the underside the same way.)

Row 4: Go under one row of warp, over the next two, under the next two, etc. (Weave the underside the same way.)

### Weaving the Two-Over-Two Checkerboard Pattern

Simply weave over and under two rows of warp at a time, and weave each woof row twice in the same way. The "checks" will then measure two rows by two rows.

### Weaving the Diamond Pattern

There is one golden rule: Always make sure there is an odd number of rows in the warp. Otherwise, it is impossible to center the diamond correctly. The diamond is created by weaving under two rows of warp in the appropriate places. We recommend that you use graph paper to plot out the size and shape of your diamond and then weave following your diagram. If you know how to weave the herringbone pattern, you will find it faster and easier to weave the underside in this pattern rather than the diamond or checkerboard. We have included a diagram of a diamond that is the correct size to fit on one of our No. 5 Side or Arm Chairs (See Figure 5).

### Weaving 5/8" Checkerboard

The narrow checkerboard gets very tight near the end. Warping fairly loosely, straightening each row as you go, and weaving the herringbone pattern on the underside will all help to make it easier. A crochet hook is a good tool for pulling the tape through near the rails.

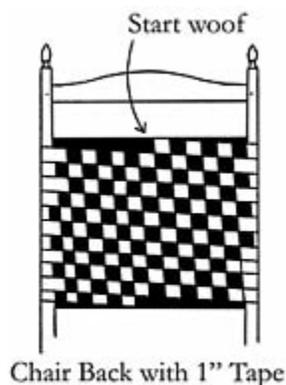


Figure 3

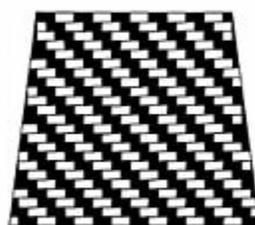


Figure 4

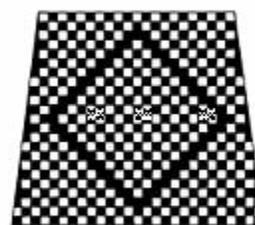


Figure 5